

Mr. Eric Larsen
Clark Retail Enterprises, Inc.
601 South Main Street
Ann Arbor, MI 48104

Dear Mr. Larsen:

Re: Exempt Construction and Operation Status,
081-15895-00051

The application from Clark Retail Enterprises, Inc. received on April 24, 2002, has been reviewed. Based on the data submitted and the provisions in 326 IAC 2-1.1-3, it has been determined that the following emission units, to be located at 400 East Jefferson Street, Franklin, Indiana, is classified as exempt from air pollution permit requirements:

- (a) one (1) soil vapor extraction blower, aerating contaminated soil at a maximum air flow rate of 8,490 liters per minute, with emissions controlled by a carbon cannister system, exhausting to Stack #1;
- (b) one (1) oil/water separator, separating oil from contaminated water at a maximum rate of 14,006 pounds per hour;
- (c) one (1) air stripper, stripping water from the oil/water separator at a maximum rate of 100,044 pounds of water per hour (12,605 pounds of air per hour), exhausting to Stack #2; and
- (d) one (1) 200 gallon LPH storage tank, receiving oil collected by the oil/water separator, exhausting to Stack #3.
- (e)

The following conditions shall be applicable:

- (1) Pursuant to 326 IAC 5-1-2 (Opacity Limitations) except as provided in 326 IAC 5-1-3 (Temporary Exemptions), opacity shall meet the following:
 - (a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
 - (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of 15 minutes (60 readings) in a 6-hour period as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor in a six (6) hour period.
- (2) Any change or modification which may increase the potential to emit of a combination of HAPs to twenty-five (25) tons per year or a single HAP to ten (10) tons per year from this source shall require approval from IDEM, OAQ, prior to making the change.

Clark Retail Enterprises, Inc.
Franklin, Indiana

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Exemption No. 081-15895-00051

An application or notification shall be submitted in accordance with 326 IAC 2 to the Office of Air Quality (OAQ) if the source proposes to construct new emission units, modify existing emission units, or otherwise modify the source.

Sincerely,

Paul Dubenetzky, Chief
Permits Branch
Office of Air Quality

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cc: File - Johnson County
Johnson County Health Department
Air Compliance - Vaughn Ison
Permit Tracking - Janet Mobley
Technical Support and Modeling - Michele Boner
Compliance Data Section - Karen Nowak

Indiana Department of Environmental Management Office of Air Quality

Technical Support Document (TSD) for an Exemption

Source Background and Description

Source Name: Clark Retail Enterprises, Inc.
Source Location: 400 East Jefferson Street, Franklin, Indiana
County: Johnson
SIC Code: 5541
Operation Permit No.: 081-15895-00051
Permit Reviewer: Madhurima D. Moulik

The Office of Air Quality (OAQ) has reviewed an application from Clark Retail Enterprises, Inc. relating to the operation of a remediated soil and ground water treatment operation.

Permitted Emission Units and Pollution Control Equipment

The source consists of the following permitted emission units and pollution control devices:

- (a) one (1) soil vapor extraction blower, aerating contaminated soil at a maximum air flow rate of 8,490 liters per minute, with emissions controlled by a carbon cannister system, exhausting to Stack #1;
- (b) one (1) oil/water separator, separating oil from contaminated water at a maximum rate of 14,006 pounds per hour;
- (c) one (1) air stripper, stripping water from the oil/water separator at a maximum rate of 100,044 pounds of water per hour (12,605 pounds of air per hour), exhausting to Stack #2; and
- (d) one (1) 200 gallon LPH storage tank, receiving oil collected by the oil/water separator, exhausting to Stack #3.

Existing Approvals

The source has been operating under previous approvals including, but not limited to, the following:

- (a) FESOP No. 081-10649-00051, issued on April 28, 1999.

The source will be granted an exemption based on recalculation of the potential to emit of the soil vapor extraction operation.

Enforcement Issue

There are no enforcement actions pending.

Recommendation

The staff recommends to the Commissioner that the operation be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An application for the purposes of this review was received on April 24, 2002, with additional information received on May 16, 2002.

Emission Calculations

The proposed source includes a soil vapor extraction and groundwater oil/water separation remediation operation. The emissions from the operations are calculated based on the maximum concentration obtained from samples at sampling port #1 (uncontrolled emissions) during the last four quarters, the respective maximum flow rates, and 8,760 hours of operation:

Soil Extraction Potential to Emit (lb/hr):

Maximum flow rate = 300 ft³/min

lb VOC (HAP)/hr = Concentration (µg/L) * flow rate (300 ft³/min) * 28.3 L/ft³ of air * 60 min/hr * 2.2E-06 lb/µg

Potential to Emit, tons/yr:

lb/hr * 1/2000 ton/lb * 8760 hr/yr = ton/yr

Soil Extraction			
Pollutant	Conc. µg/L	Pot. (lb/hr)	Pot. (ton/yr)
Benzene	15.0	0.02	0.07
Toluene	4.1	0.005	0.02
Ethylbenzene	0.74	0.001	0.004
Xylene	5.8	0.007	0.003
MTBE	1.9	0.002	0.009
TPH (VOC)	570.0	0.64	2.8

Groundwater Treatment Potential to Emit (lb/hr):

lb VOC (HAP)/hr = Concentration (mg/L) * flow rate (28 gallon water/min) * 3.79 L/gallon * 60 min/hr * 2.2E-03 lb/mg

Potential to Emit, tons/yr:

$$\text{lb/hr} * 1/2000 \text{ ton/lb} * 8760 \text{ hr/yr} = \text{ton/yr}$$

Groundwater Treatment			
Pollutant	Conc. mg/L	Pot. (lb/hr)	Pot. (ton/yr)
Benzene	13.00	0.18	0.80
Ethylbenzene	4.80	0.07	0.29
MTBE	0.08	0.001	0.005
Toluene	51.00	0.71	3.12
Xylene	26.00	0.36	1.60
Total			5.82

Potential To Emit

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as “the maximum capacity of a stationary source or emissions unit to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA, the department, or the appropriate local air pollution control agency.”

Pollutant	Potential To Emit (tons/year)
PM	Negligible
PM-10	Negligible
SO ₂	Negligible
VOC	8.62
CO	Negligible
NOx	Negligible
Comb. HAPs	8.62

- The potential to emit (as defined in 326 IAC 2-7-1(29)) of pollutants are less than the levels listed in 326 IAC 2-1.1-3(d)(1). Therefore, the source is subject to the provisions of 326 IAC 2-1.1-3.
- The potential to emit (as defined in 326 IAC 2-7-1(29)) of any single HAP is less than ten (10) tons per year and/or the potential to emit (as defined in 326 IAC 2-7-1(29)) of a combination of HAPs is less than twenty-five (25) tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-1.1-3.

County Attainment Status

The source is located in Johnson County.

Pollutant	Status
PM-10	attainment
SO ₂	attainment
NO ₂	attainment
Ozone	attainment
CO	attainment
Lead	attainment

- (a) Volatile organic compounds (VOC) are precursors for the formation of ozone. Therefore, VOC emissions are considered when evaluating the rule applicability relating to the ozone standards. Johnson County has been designated as attainment or unclassifiable for ozone. Therefore, VOC emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.
- (b) Johnson County has been classified as attainment or unclassifiable for all other criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.

Part 70 Permit Determination

326 IAC 2-7 (Part 70 Permit Program)

This existing source is not subject to the Part 70 Permit requirements because the potential to emit (PTE) of:

- (a) each criteria pollutant is less than 100 tons per year,
- (b) a single hazardous air pollutant (HAP) is less than 10 tons per year, and
- (c) any combination of HAPs is less than 25 tons/year.

Federal Rule Applicability

- (a) There are no New Source Performance Standards (326 IAC 12) applicable to this source.
- (b) There are no National Emission Standards for Hazardous Air Pollutants (NESHAP) applicable to this source.

State Rule Applicability - Entire Source

326 IAC 2-6 (Emission Reporting)

Since this source is located in Johnson County and the potential to emit of all criteria pollutants are less than 100 tons per year, 326 IAC 2-6 does not apply.

326 IAC 5-1 (Visible Emissions Limitations)

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Exemptions), opacity shall meet the following, unless otherwise stated in this permit:

- (a) Opacity shall not exceed an average of forty percent (40%) any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings) as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

State Rule Applicability - Individual Facilities

326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP))

The operation of the soil vapor extractor will emit less than 10 tons per year of a single HAP or 25 tons per year of a combination of HAPs. Therefore, 326 IAC 2-4.1 does not apply.

326 IAC 8-1-6 (General Provisions Relating to VOC Rules: General Reduction Requirements for New Facilities)

The potential VOC emissions of each facility at the source is less than 25 tons per year. Therefore, 326 IAC 8-1-6 does not apply.

Conclusion

The operation of this remediated soil and ground water treatment operation shall be subject to the conditions of the attached proposed Exemption No. 081-15895-00051.